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REMARKS ON PYO- AND HYDRO-SALPINX.

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THERE is perhaps no other organ of the human body which is at present receiving as much attention from gynecologists and surgeons as the ovary. It is marvellous to relate the manifold symptoms of the ailing female which may be traced, says the specialist, to disease of the ovary as the cause. So much has been said and written about that important organ that the subject is almost threadbare. Indeed, gynecological teachers and writers leave as little to be said as the surgeons leave of the ovary, once the unfortunate female comes within range of their skill.

It is not surprising, therefore, that the ovary's near neighbor and ally, the Fallopian tube, should merit a share of the pathologist's attention.

The anatomy of the Fallopian tube is well known and its functions have been frequently discussed. Some of its diseases, too, have often been described and efforts made to alleviate them. Just now, however, two very serious affections, which find their home in the tube, are receiving renewed attention. I refer to pyo- and hydro-salpinx. It would be interesting, perhaps, to trace the history of the study of these departures from the norm in the Fallopian tube. More than two hundred and fifty years ago, they were spoken about quite clearly, and at irregular intervals from the early part of the seventeenth century to the present time articles have been written descriptive of the sero-mucous or the purulent collections which have been discovered in the tube, or, being there, have found vent to the outer world through various channels.

But I early learned that the *practical* finds more ready listeners than the *historical*, and hence I shall offer for your consideration the present aspects of these diseases as clearly as I know them. I shall begin by two definitions. By pyo-salpinx, I mean a collection of pus within the Fallopian tube. By



hydro-salpinx I mean a collection of serous or sero-mucous fluid within the Fallopian tube, the result of some organic change or functional derangement of that viscus.

The etiology of these disturbances is not always as clear as the student would wish. There is generally some concurrent inflammation of an adjacent organ, whence the tube trouble takes its origin.

Salpingitis may be considered the analogue of epididymitis in the male. The oviduct and the seminal duct cannot in their earliest periods of development be distinguished one from the other. This is true also of the ovary and the testicle. It is only when the conducting tube acquires its just connection with the formative organ and the exterior body that the perfection of development is attained (Sir James Paget). Reasoning then from inflammation of the epididymis, we may say that, as a rule, salpingitis is a consecutive affection, due in most cases to an extension of inflammation. This may be due in some instances to tubercular disease of the ovary; for in many cases where that condition of affairs is present, pus is found in the tube together with changes in the organ itself. I believe, in such instances, the tubular disease is a sequence of the ovarian trouble. It is true, there may be co-existent tubercular infiltration of the mucous membrane of the tube, attributable to the same cause as the tubercular disease of the ovary itself. A gonorrheal inflammation may find its way, by continuity of structure involved, to the tube. This produces a lesion very serious both in its immediate effects and ultimate consequences. Pelvi-peritonitis always causes more or less disaster to the Fallopian tube. In every case of post-mortem studied by me, I have found mention made of the implication of the oviduct where pelvi-peritonitis was the original disease, or the condition which had been previously diagnosed, and to which the patient's death was considered due. Even when the pelvi-peritonitis had been relieved and the woman died shortly after of some other disease, as typhoid fever or small-pox, still, invariably pus was found in the Fallopian tube. A catarrhal condition of the endometrium will often lead to a similar trouble in the tubes. I doubt, though, if it be necessary for me to mention separately all the diseases which are capable of producing secondary trouble in the Fallopian tubes. Suffice it to say, that

they may suffer from an inflammation existing in a continuous or contiguous structure. Primary disease of the organ under consideration, is, I take it, relatively rare. This, however, should not lessen our interest in the subject; for an affection, which may be comparatively innocent whilst confined to another organ, will assume a more serious aspect after the oviduct has become involved. When, for example, a catarrh of the endometrium finds its way into the tube, a very serious condition of things may follow. Obliteration of both the uterine and abdominal apertures may occur. A quantity of fluid, generally of a sero-mucous character, will fill the duct, and dilatation of its walls be a natural consequence. This fluid may at times be of a brownish, greenish, or reddish color on account of the hemorrhage which has taken place. It may contain flocculi, be of a muco-purulent character, or consist of sanguineo-muco-pus.

It is interesting to read of the enormous size to which the Fallopian tubes have become distended, and the immense weight of their contents. It almost surpasses belief that they should form tumors weighing one hundred pounds or more. But there are records of cases where the dilatation was such that the distended tube formed a tumor as large as the head of a child ten years old (Scanzoni). From atresia occurring at various points the tube may become partitioned, and resemble a string of beads.

The uterine opening, however, may not be closed, and the contents can then empty into the uterus, thus producing profluent dropsy of the tubes, as Rokitansky calls it.

Whilst I am willing to concede that the tube of a parturient woman may be more liable to take on a croupy affection, resulting in the formation of pus, yet I must insist that a collection of purulent fluid in the oviduct does not necessarily presuppose parturition. The difficulty, however, is not in acknowledging that females suffer from pyo- and hydro-salpinx, but in diagnosing the existence of these diseases in given cases. Bimanual palpation is our readiest means of ascertaining the presence of any tumor in the abdomiual cavity. The trouble lies in differentiation.

A study of the symptoms will not throw much light upon the subject. Indeed, I do not know a more disheartening study than the symptomatology of gynecological diseases. I am not aware of any one symptom or collection of symptoms pathognomonic of pyo- or hydro-salpinx. I believe, if it can be differentiated at all, it will be solely by that manipulator who approaches nearest to having eyes in the end of his fingers. But looking at this matter from the point of view of modern surgery, we are fast losing the necessity of differentiation. It only becomes necessary to determine the presence of an abdominal tumor and its present or remote dangerous tendency. That a serous or purulent disease of the Fallopian tube would be a most dangerous evil, no one can deny after even a superficial view of the possible or probable consequences. Where the tumor was so large as to impede respiration, to cause great damage to surrounding viscera, and prevent, by pressure or otherwise, the performance of their proper functions, or to add seriously to the patient's discomfort, then the surgeons would be practically unanimous in advising its removal. But all abdominal tumors are, to a certain extent, some more, some less, harmful to life. I believe we are fast approaching the time when exploratory incisions of the abdominal cavity will be of much more frequent occurrence than at present. Whilst the surgeon may not be willing to confess that he cannot tell of what wood the table is made until he removes the cover, still he will feel less hesitancy in making assurance doubly sure by doing so. Surrounded by every safeguard against septicism, he will be better prepared to do major operations with less risk than would have attended minor ones only a few years back. But for some reason there seems to be more danger in the performance of an operation for the removal of a tube affected by pyo- or hydro-salpinx than in the performance of an oöphorectomy. A perusal of the report of the discussion concerning this subject at the recent International Medical Congress would lead one to infer that there are special dangers surrounding the removal of an oviduct complicated by the existence of a salpingitis. I regret that I am not able to give you a full account of these perils as observed by German surgeons. I believe, though, that English-speaking surgeons will not be deterred by such unfavorable reports from pursuing the onward tenor of their way towards removing every difficulty from the path of progress of abdominal surgery.

Strange as it may seem, there would appear to be something special in the individual operator. One surgeon will fearlessly undertake an operation of grave importance and surrounded by many difficulties. His patient will recover without a bad symptom. Another, less fortunate, will attempt an operation somewhat similar in character but free from complications. He will attend to every detail, surgical and antiseptic. Still, although the operation might be called a success, the patient will die. Of course, there may be constitutional reasons for the disastrous effect of the operation in the second individual.

I consider it unprofitable to discuss any other method of surgical procedure than complete removal of the diseased tubes. It might have been well enough in other times to make drains by which the serous and purulent collections could be discharged, but the dangers of such operations equal, if they do not surpass, the perils of opening the abdominal cavity in these halcyon days of antiseptic surgery.

Were it so easy to pass a catheter into the Fallopian tube as some would have us believe, I would advise in all cases of suspected pyo- or hydro-salpinx that dilatation of the uterine aperture be practised in the hope of converting the difficulty into a case of profluent dropsy or its congener. But since I have not yet been convinced of the great facility said to be possessed by some in that direction, I doubt if such a mode of treatment will often be feasible.

I deem it unadvisable to use the trocar or the aspirator for fear of causing adhesions, and further complicating the case without any beneficial result.

Counter-irritants should be tried in the early stages of these diseases; and I would advocate the continuous use of small blisters over the part affected.

Massage is, in my opinion, contra indicated. All concurrent uterine or other troubles should, if possible, be relieved.

I doubt if internal medication is of much avail. Tonics, of course, should be used, and I believe I would also try arsenic and iodide of potassium. Elaterium I would let severely alone.

But pyo- and hydro-salpinx are scarcely diseases for the physician to treat with any great hope of success. They are better managed in the surgeon's province.

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